



STATE OF RHODE ISLAND
**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

RI EERMC Annual CHP Public Meeting

Thursday, May 2, 2019

4:00-5:00 PM

The Energy Innovation Hub

RI Energy Efficiency and Resource Management Council (EERMC) members Karen Verrengia and Tom Magliocchetti welcomed attendees and introduced the Council and its purpose. The Council is charged with overseeing Rhode Island's energy efficiency programs, and getting feedback on National Grid's Combined Heat and Power (CHP) program is part of that process.

Mark DiPetrillo & John Karlin, National Grid

- Mark described the various eligible CHP technologies and energy savings potential of CHP (83% efficient) compared to conventional generation taking power from the grid and producing thermal energy with boilers (49% efficient combined).
- Rebate levels are based on system efficiency; performance incentive
- Q: Does the program incentivize Forward Capacity Market (FCM) savings?
 - o A: FCM helps Grid pay out incentives. The rights to Forward Capacity go to Grid when a customer takes the incentive
- Projects must pass RI's benefit cost test, must commit to 10 years of operation, can't exceed the load of the facility
- Q: How would a compressed air project be treated?
 - o A: Compressed air would probably be a custom measure, like combined cooling, heating & power (CCHP). It still has to produce electric and thermal, but Grid is trying to think out of the box.
- John described the process to apply for a CHP incentive.
 - o Reach out to your National Grid sales rep or John Karlin.
 - o Get application in early as it takes time.
 - o Scoping study → TA study if needed → offer incentives → installation (authority to interconnect) → inspection / commissioning
- RI CHP Guidebook: <http://www.ngrid.com/ri-chp>
- New for 2019
 - o Will be a new project/program manager
 - o Continued use of EE TA studies to find opportunities
 - o Working with the state to simplify the Advanced Gas Technology program – open to suggestions
- Market review / next steps
 - o Continued program success (2 systems installed last year)
 - o Fuel cell interest – working on larger projects
 - o Also targeting smaller systems
- Q&A / Feedback
 - o Q: Have many taken advantage of the ongoing performance incentive?

- A: 2 projects in RI currently, probably more last year; RI doesn't have many accounts over 6 MW
- Q: Is there something that depicts the rate of performance incentive based on efficiency?
 - A: The performance incentive is based on production
- Q: What gets a TA study?
 - A: If it's a standard project, the numbers go into a spreadsheet that uses typical parameters to get estimates. If something different (e.g. 500 kW fuel cell), a TA study will be used
- Comment: Interconnection can be a roadblock
- Q: After you install CHP, are EE incentives then pro-rated?
 - A: Yes, but the program is based on system benefits, which go down overall. There are also other offsets and it's more of a problem for larger systems. John has only run into one project that experienced this and incentive levels were only reduced by 10%.
- Q: How is the incentive distributed? Final payment based on?
 - A: 80% is sent upon post-construction inspection and start up
 - The 20% balance (which may be adjusted) upon verification of performance

Graeme Ownjazayeri, RI Infrastructure Bank (RIIB)

- The majority of RIIB's business goes to municipalities, however, it is engaging more frequently with private entities for energy-related projects
- **Private Sector Borrowers**
 - C-PACE
 - 100% financing, long payback periods, matched to useful life of equipment
 - Slightly higher interest rates than typical bank loan, but no money down, transferable to next owner or tenants, secured by municipal lien on the property (like a sewer assessment)
 - No mandated savings ration in Rhode Island, which allows for a wider array of building improvements
 - RIIB has a group of lenders and matches them with projects as appropriate
- **Public sector borrowers**
 - Efficient Buildings Fund
 - 100% financing for renewables, EE, CHP
 - Below market interest rates
 - Cashflow positive - payments are recaptured through savings
 - Clean Water Fund
 - Available for water and wastewater systems

Beka Kosanovic, CHP Technical Assistance Partnership

- The Partnership provides pre-screening assistance to help people figure out whether or not CHP is the right technology for their facility
- Have been talking to cities and towns interested in resiliency – integrating CHP with other systems like solar PV with battery storage system
- The process involves Screening/prelim analysis → feasibility analysis → investment grade analysis → procurement, O&M, commissioning
- The Partnership refers projects to developers and helps write proposals
- DOE has created a CHP catalogue, a web-based system that hosts DOE recognized Packaged CHP systems, CHP solution providers and CHP customer engineering partners. More information available at:
 - o <https://chp.ecatalog.industrialenergytools.com/>
- US DOE also maintains a site that contains database with existing CHP installations:
 - o <https://betterbuildingssolutioncenter.energy.gov/chp/chp-project-profiles-database>
 - o <https://doe.icfwebservices.com/chpdb/>
- Their services are free
- Q: How many get further than the initial screening?
 - o A: The majority of their work is screenings but some sites that have moved forward have received additional assistance including help with RFP and proposal reviews.

Open Q&A / Feedback

- Q: What is the state doing to support CHP at the policy level?
 - o A: There were no state representatives present to address the question.
- Comment: We haven't done a CHP project in Rhode Island in 3 years, but have been doing lots of projects in MA.
- Comment: One challenge has been that no one will guarantee high-pressure gas
 - o A: PSI depends on location. Some distribution areas are higher but may need to be reduced for emergencies, so it can't be guaranteed. Lower PSI lowers system efficiency, so it's a good point. Efficiency will also be a function of equipment size. Boosters can be added to increase PSI, but this adds cost to the project
- Comment: Rhode Island should look at the DOE catalogue, particularly for smaller projects, and put together a program based on it. It comes back to right-sizing; there is often a tendency to oversize systems.
- Q: Is there any support for legacy systems and looking for additional heat recovery opportunities?
 - o A: Yes, National Grid is doing that.

Karen thanked attendees for coming and encouraged everyone to visit www.rieermc.ri.gov for more information on how to participate in conversations on energy efficiency programs Rhode Island.